

B. viridis, Scopoli (*cinereocapilla*, Savi). The common Bengalese species, more or less diffused over other parts of India. I find this absolutely identical in species or race with numerous examples collected in Egypt, the colour of the cap becoming of a deep dark plumbeous, with blackish ear-coverts, and the chin with submoustachial line bordering the ear-coverts, white. In winter dress, younger specimens have a pale superciliary line more or less developed; and I do not know how such are to be distinguished from the European *B. flava*.

III.—*Notes on the Birds observed at Pisa and in its Neighbourhood during the Winter, Spring, and Summer of 1864.* By HENRY GIGLIOLI, Sc.D., C.M.Z.S.

AFTER the labours of that veteran ornithologist, Professor Savi, in this part of Italy, it would have been presumptuous to think of finding anything new here, and especially for me, whose time has been taken up by studies which require a much more sedentary life than those of practical ornithology. However, having observed and studied the habits of a pretty good number of Tuscan birds, I hope that a few extracts from my notes will not prove uninteresting to the readers of the 'Ibis.'

I arrived at Pisa towards the end of December, and from that time have constantly employed my leisure hours in the study of my favourite science. What surprised me much, during my peregrinations, was to find such a paucity of Raptorial birds. "Pharaoh's Hen" (*Neophron percnopterus*), though said to be pretty common on the Monte Argentaro and in the Siennese Maremma, does not occur nearer Pisa; and I never succeeded in seeing one, though I kept up a sharp look-out. "Jean le Blanc" (*Circæetus gallicus*) is pretty common, and I have met with it during the winter in the pine-forests which border the sea-coast from the Gombo to Leghorn. The Buzzard is also common in the same places; it belongs to the dark variety, named *Falco (Buteo) pojana* by Savi. The Kite, said to be abundant, I have never seen; while towards the end of April I have met several flocks of the Red-legged Falcon (*Erythropus vespertinus*), among which I noticed

several small Kestrels, most likely the *Tinnunculus cenchris*. The former small Falcon feeds entirely on insects, especially Orthoptera, and is so Cuckoo-like in some of its habits that it is considered a sort of Cuckoo by most Italian peasants. In the winter I saw, several times, Ospreys (*Pandion haliaëtus*) flying at a great height over the Arno. *Circus æruginosus* and *Otus brachyotus* are pretty common among the marshy flats around this place; and I have occasionally seen *Strigiceps cyaneus*, which is, however, much rarer. Often while returning home of an evening from the town during May, my eyes delighted with the innumerable Fire-flies (*Lampyrus italica*) which continually crossed my path, and my ears with the lovely notes of the Nightingale, these have been interrupted by the melancholy hoot of the small Scops Owl (*Scops zorca*) and the curious cry of the "Civetta" (*Athene noctua*), watching for their prey on the tops of the high poplars which line the Piaggie road. The funereal *Strix flammea* often utters its dismal screech from the roof of the Campo Santo, or from the top of the celebrated Leaning Tower, where it finds a plentiful prey among the numerous *Molossi* and other Bats which inhabit those two structures.

The Nightjar (*Caprimulgus europæus*) is not very abundant; but its churring note is often heard in the dusky twilight of spring and summer evenings. *Hirundo rustica* and *Chelidon urbica* are the only Swallows seen about here: the latter made its appearance before the former, towards the end of March. I have not met with the *Hirundo rufula* of Temminck, of which I procured several specimens when at Genoa some years ago: it passes that place in small numbers pretty regularly; for every year one or two are captured among the hundreds of Chimney Swallows which are shot for the Genoese market during the spring migration. I suppose that a few pass this neighbourhood also, but have escaped detection, as Swallows are never shot here, being considered chickens of the Madonna. Where is the *true habitat* of this species, which is certainly quite distinct from the *H. alpestris* (Pallas) of Eastern Asia? In August I saw several Rock-Martins (*Cotyle rupestris*) about the Bagni di Lucca. *Cypselus apus* abounds in the old edifices of the town; and now and then I have seen a truant individual of the great White-

bellied Swift (*Cypselus melbus*), which nestles in great numbers along the Etruscan coast. During the first days of May, large flocks of the common Bee-eater (*Merops apiaster*) passed over this place, flying northwards. They continually betray their presence by their loud rolling whistle; but rarely stop near here, unless in the olive-plantations at the foot of the Monte Pisano. They appear, however, to breed not far from this place, as in August I have met with the young birds in the Tombolo Forest. *Merops aegyptius*, a few stragglers of which have been caught at Genoa, has never been seen here. *Upupa epops* is pretty common; but its shy and retiring habits, no less than its noiselessness, make it appear rarer than it really is. It arrives in April, and may often be seen feeding on worms and grubs in the damp fields along the Arno. About here I have observed the active little *Certhia familiaris* very common; and once or twice I have had the opportunity of seeing the rarer and lovely *Tichodroma muraria* displaying its bright rose-coloured wings on the rocks of the Monte Pisano, near the Baths of San Giuliano.

The small and sprightly *Luscinidae* are very abundant in this part of Italy. In the beginning of spring, when the reeds and other marsh-plants are not yet grown, the tiny *Cisticola schænicola* is constantly seen flying upwards over corn-fields, uttering its cheerful song, and then diving down again amongst the green wheat. *Pseudoluscinia luscinoides* (Savi) is pretty common; but it keeps to the thick willow-bushes which border the river, and into them one must penetrate to observe it: it creeps about the twigs and leaves just like the *Phylloscopi*. *Calamodyta arundinacea* and *Acrocephalus turdoides* are abundant among the reeds which border the Arno towards its mouth, and the loud and laugh-like notes of the latter are constantly heard in such situations; while the rarer *Calamodyta cettii* and the *Calamodus melanopogon* are to be seen, in the spring, among the tall reeds (*Arundo donax*). I have found *Thamnodus melanocephalus* in early spring, but it is rare; it differs totally in song and habits from the common Blackcap (*Monachus atricapilla*), which stops with us all the winter. *Epilais hortensis* begins to be abundant in the beginning of autumn; it frequents fig-trees, and is the true "Beccafico" of the Italians. *Adophoneus curruca* and *A. orphea*

arrive in April; and certainly the harsh and discordant song of the latter does not justify its specific denomination: the males of both have the habit of perching on the topmost branch of a tree, and from thence they fly up in the air, uttering their short, powerful song, while the females enjoy the concert lurking in the grass beneath. *Hypolais polyglotta*, out of which several species have been made, is not very common, and is much more solitary in its habits than the Willow Wrens, which are all common,—*Phylloperne rufa* remaining here all the winter, while *P. trochilus*, *P. sibilatrix*, and *P. bonellii* succeed each other in the spring: the last is the scarcest, and has much the same note and habits as the Grove Pettychaps. The *Reguli*, *R. cristatus* and *R. ignicapillus*, are both common during the winter, especially among the pines of the Cascine. The Wheatear (*Saxicola ænanthe*) abounds in early autumn, being much esteemed as an article of food; and the *Pratincola rubicola* may constantly be seen on the top of bean-sticks and in other prominent positions. I never met with the *Saxicola stapazina* or the *S. aurita*, both so common in the neighbourhood of Genoa. The Redstart (*Ruticilla phænicura*) is common in spring, and still more so towards the end of summer; while *Cyanecula leucocyanea* (with the white pectoral spot) is scarcer, and frequents the borders of marshes: it has a curious way of spreading out its fan-shaped tail. The Nightingale (*Philomela lusciniæ*) arrives early in April, and soon makes all the neighbourhood resound with its melody. Dunnocks are not common here; but several times during the last winter (which was most severe) I saw the *Accentor alpinus*, while I only once stumbled across *A. modularis*, so common in England.

Amongst the *Parinæ*, *Parus major*, *P. ater*, *Cyanistes cyaneus*, *Pæcile palustris*, and *Orites caudatus* are all common, while the elegant *Panurus biarmicus* is pretty numerous in the Maremma. But what surprised me most was the extreme abundance of that lovely little bird, the Penduline Titmouse (*Paroides pendulinus*). About the 2nd of March it first made its appearance, in pairs, frequenting the tops of the poplars (*Populus alba*) which line the Piaggie road. I became aware of its presence by the shrill whistle, resembling the note made by an Orthopterous insect, which the males continually uttered. Towards the end of the

month, the poplar-down being abundant, they began to weave their beautiful nests ; and by the first week in April some were already finished, and gracefully swinging from the extremities of the uppermost poplar-twigs.

As I had such excellent opportunities for observing the nest-making process of these interesting birds, I shall here give the history of a nest of which I witnessed the beginning and, I am sorry to say, the end ; for I had it taken down as soon as the eggs were laid. Passing, one morning early in April, under a poplar, I observed a pair of Pendulines apparently very busy : I stopped to look, and soon found that they had just fixed on a convenient twig, and were laying the foundations of their aerial abode, which, as in all suspended fabrics, were uppermost. Both male and female were hard at work, the materials used being fine long grass. They were two days in forming what I may call the skeleton of the nest : it was bell-shaped, the twig forming a kind of axis. Early on the morning of the third day, as I paid my usual visit to the little builders, I found the male busy with a ball of poplar-down nearly as big as himself ; this he secured between the twig and the incipient fabric, and, taking a small tuft in his bill, he set-to weaving it into the top of the framework. The female presently arrived, also carrying a great ball of down, and she went to work in the same way. This process continued that day ; and towards the close of the following one the bell-like framework was covered with a thick coating of down. Now came the most difficult and interesting part of the undertaking, namely, the weaving-in of the bottom of the nest. Both birds worked as usual, though the male seemed to act as chief architect, looking over the work of his mate, and giving it an occasional touch-up. It usually took them about five minutes to collect the load of down ; this they always deposited near, taking little bits from it for use as required. The weaving was all done with the bill, as the bird was suspended head downwards, holding on to the finished part of the nest by its powerful claws. On the eighth day the nest had assumed its kidney-like form, with a great ragged opening on one side. The little couple now set about making the entrance of their house, and seemed to consider it a very important undertaking ; for they were two whole

days at it: both worked standing in the nest, and only their pretty little heads were visible. The portico came out very grandly—a tube $2\frac{1}{2}$ inches long, tolerably thick, and strongly woven. A couple more days were spent in thickening and strengthening the sides and bottom of the nest; and on the thirteenth day, seeing that they had left off working, and that the female kept very much in the nest, I guessed that she was laying; and though it grieved me much to take from the industrious little pair the product of their labour, I sent up a boy to get the nest; for the naturalist must sometimes play the thief, and even worse, to prosecute his studies. The nest contained one very small white egg. I measured the nest, and found it $8\frac{1}{2}$ inches in length, 4 in breadth, and 17 along the greater circumference; in the bottom the down was 3 inches thick. The adult bird is hardly $3\frac{1}{2}$ inches in length, from the tip of the bill to the root of the tail.

In the middle of April nests were brought to me with their full number of eggs, which varied from four to six; towards the end of the month very young birds were brought to me; and about the middle of May I began to see some youngsters, insect-hunting about the poplars, with their parents; after the middle of July they disappeared, going, I suppose, towards the Maremma, and now and then only have I seen a straggler on the white poplars. In the Maremma Marshes many Pendulines build, constructing a less beautiful nest with aquatic plants and grasses.

During the winter, *Motacilla alba* is abundant along the roads, while *Pallenura boarula* keeps to the small torrents of the Monte Pisano. *Budytes flava*, *B. cinereocapilla*, and *B. melanocephala* (which two last I consider mere permanent varieties or races of the first-named, and I think can as yet only be described as incipient species) arrive in small flocks in April, and may always be seen in the marshy meadows frequented by cattle and horses along the river. *Spipola pratensis* abounds in the same localities during winter, while the Tree Pipit (*Pipastes arboreus*) appears in spring frequenting corn-fields and meadows.

The Dipper (*Cinclus aquaticus*) is never found in the Pisan plain; but it is pretty common in the Lucchese Apennines, and I have

seen it hopping about, tail erect, among the rocks which form the bed of the torrent Lima, at the Bagni di Lucca. Of the *Turdi* I have observed all the common European species, except the Fieldfare (*T. pilaris*); and I have several times met with the Ring-Ouzel (*Merula torquata*). In April the two Rock-Thrushes make their appearance: the *Petrocincla saxatilis* may then be seen perched on the detached masses of limestone which adorn the flanks of the Monte Pisano; while the "*Passera solitaria*" of the Italians (*P. cyanea*) generally frequents old towers and church steeples, and pours forth its glowing melody even from the top of the Verruca, a ruined mediæval fortress which crowns one of the highest summits of the Pisan range. The Golden Oriole (*Oriolus galbula*) reaches these shores towards the end of April, and the poplar-trees which fringe the Arno resound soon after with its powerful and monotonous note. It is indeed a glorious sight to see one of these beautiful birds flying, the golden yellow of its body contrasting beautifully with the intense black of its wings and tail. As Mr. Swinhoe has observed in *O. chinensis*, in the European species also, the adult female acquires a plumage similar to that of the male; and I suppose the same is the case with all true Orioles.

Flycatchers were pretty abundant in April, and on the same day I shot the three common European species, *Butalis grisola*, *Muscicapa albicollis*, and *M. luctuosa*. This last species is new to the Tuscan avifauna; and when I showed the numerous specimens I had procured to Professor Savi, he was much surprised, and said that, during the forty years he has been studying the ornithology of this part of Italy, he had never come across the Pied Flycatcher, which, however, abounds during the spring passage at Genoa and all along the Riviera. *Erythrostera parva* has been caught not far from here, but it is very rare.

I have only met with two species of Shrikes, the common *Enneoctonus collurio* and the scarcer *Lanius minor*, though the Wood-Shrike (*Phoneus rufus*) is said to be abundant in this neighbourhood.

Few species of the Crow-tribe appear in the vicinity of Pisa. *Garrulus glandarius* is very common, and even utters its loud screams along the much-frequented Piaggie road. The Magpie

(*Pica caudata*) may also be seen pretty often, especially perched on the humps of the camels used for conveying wood in the King of Italy's park at the Cascine. Among the same Camels, in the meadows which border the Cascine, large flights of Rooks (*Corvus frugilegus*) are to be seen during the winter and early spring, making great havoc among the *Lumbrici* and other Invertebrates: with them are generally a few specimens of the Hooded Crow (*C. cornix*); but the Rooks disappear in spring, none breeding here, while the Carrion Crows remain. According to Savi, the roof of the Battistero sheltered a numerous colony of Jackdaws in times gone by; but now, not a single individual of the *Lycus monedula* is to be seen about here.

Pastor roseus occurs irregularly; and I had the good fortune to see a couple flying in the midst of a flock of Starlings (*Sturnus vulgaris*) in June. When caught, they are constantly found among Common Starlings.

Finches are pretty numerous here; and towards the end of March small flocks of the Hawfinch (*Coccothraustes vulgaris*) appear. *Chlorospiza chloris* follows, frequenting the tops of the white poplars which line the Piaggie and Cascine roads, as do also small flocks of Siskins (*Chrysomitris spinus*), Goldfinches (*Carduelis elegans*), and the lovely little "Serino" (*Dryospiza serinus*) later in the spring. *Petronia stulta* is not common: I have occasionally seen it during last winter, which, being very severe, caused the Brambling (*Fringilla montifringilla*) to be extremely abundant; and even a few specimens of the *Montifringilla nivalis* made their way from the snows of the higher Apennines to the warmer Pisan plain. It is remarkable that I have seen no Linnets during my stay here. *Passer italiae* and *P. montana* abound; and the two breed in company on our roof, on which I found no less than forty-eight nests, thirty belonging to the Tree-Sparrow. Their constant sociability confirms the views of some French ornithologists, who think Sparrows closely allied to the *Plocei*.

Among the Buntings, Pisa and its neighbourhood possess some fine species. During the winter I have observed the following:—*Emberiza citrinella*, *E. cirrus*, and *E. cia*. Towards the beginning of spring, the curious note of the Corn-Bunting (*Spinus miliaria*)

is heard in every field; and later in the spring, the marshes teem with *Cynchramus schæniclus*, while that most interesting and anomalous Bunting, the *C. palustris*, is by no means uncommon in the same situations: its bill resembles mostly in shape that of the *Pyrrhulæ*, which character isolates it from all other *Emberizæ*; while in size and colour it is curiously like the common Reed-Bunting, with which it was long confounded. It certainly deserves to be considered as the type of a subgenus, if not of a genus; and as no one seems to have anticipated me, I propose the generic name of *Pyrrhulorhyncha*,—being at the same time ready to withdraw it, if any one has had the priority over me: thus it will stand as *Pyrrhulorhyncha palustris*. *Buscarla lesbia* (with which may rank as synonym the *E. durazzii* of Bonaparte) is said never to occur here; but I saw several in February, feeding in a field among other Buntings. The Ortolan (*Glycypiza hortulana*) appears in great numbers in the spring, enlivening the country around with its pleasing song.

Among the Larks, *Alauda arvensis*, *Galerida cristata*, and *Lullula arborea* abound during winter; while in spring large flocks of the *Calandrella brachydactyla* appear, especially along the sea-shore near the Gombo. *Melanocorypha calandra* is a constant resident, but not very common in the immediate neighbourhood of Pisa; and during January two specimens of the Shore-Lark (*Otocorys alpestris*) found their way to the Pisan market. The two varieties of the Bullfinch (*Pyrrhula vulgaris*) are abundant, but only during the winter.

The species of Woodpeckers I have observed are few. I found *Dryobates major* and *D. minor* pretty common; while the pine-forest called the Tombolo, which extends from here to Leghorn, resounds with the loud cry of the Green Woodpecker (*Gecinns viridis*). *Yunx torquilla* abounds, and remains here even during the winter, for I procured specimens in January and February. *Cuculus canorus* is rather scarce; it arrives at the end of April: I saw the first one, this year, on the 29th of that month. According to Savi, *Coccystes glandarius* has actually bred in the woods around Pisa; but I think its occurrence here quite accidental.

The only *Columbæ* I have seen about these parts are the Ring-

Dove (*Columba palumba*) and the *Turtur auritus*, which last arrives in May and is very abundant.

Among the *Gallinæ*, three species of Partridge occur—*Perdix cinerea*, *Caccabis rufa*, and *C. græca*, the last-mentioned being the scarcest. In April the whole neighbourhood resounds with the note of the Quail (*Coturnix dactylisonans*). The little Bustard (*Otis tetrix*) is said not to be rare, and nearly every year some are captured in the immediate vicinity of this place; however, I have not met with it during my stay here.

The Stone-Curlew (*Ædicnemus crepitans*) is common; it appears to be a resident species. The "Sea-Partridge" of the Italians (*Glareola torquata*) arrives in May, and is generally brought living to the market, being caught by fowlers who are out after Sea-Swallows. The Lapwing (*Vanellus cristatus*) abounds in large flocks during the winter, and frequents the large damp meadows which border the Casine road; and being in the King's preserves of San Rossore, nobody can touch them: they leave in April, and it is rare to see one here that has acquired the black throat. The Golden Plover (*Charadrius plumialis*) is extremely common, but only during the winter; and the two Ring-Plovers, *Ægialites hiaticula* and *Æ. minor*, arrive in spring in full nuptial plumage, the last one only breeding here, along the Arno. Both the Turnstone (*Strepsilas interpres*) and the Oyster-catcher (*Hæmatopus ostralegus*) are rather scarce in these parts, and I have only seen one of the latter flying over the Arno in April.

Cranes (*Grus cinerea*) repass here in March, and it is a fine sight to see them flying high up in the air, forming a compact phalanx of the shape of an inverted λ ; they generally betray their presence by loud and discordant screams. With Savi, I believe it not unlikely that a few may pass the winter in the Tuscan Maremma and Pontine Marshes.

I found the Grey Heron (*Ardea cinerea*) scarce, while during the spring passage (towards the end of April) I frequently saw large flights of the Purple Heron (*Ardea purpurea*) slowly flapping overhead; they are then in full nuptial plumage, and are the commonest among the true Herons in this neighbourhood; they breed in the adjacent marshes, and in the beginning

of autumn, during the passage southwards, the young form by far the majority. *Herodias egretta* is very rare, and I have not seen it; but the smaller *Herodias garzetta* is much more abundant, and on the 15th of last April I saw a flock of ten lazily flapping over the Arno in front of our house, their snow-white plumage making a fine contrast with the dark foliage which borders the river. On the 30th of April, during a rowing-trip with a friend down the Arno, I observed two white birds wading about a sand-bank near the river's mouth, which, when we got nearer, proved to be the rare *Buphus russatus*, or Buff-backed Heron, so common in Egypt—a species which is certainly quite distinct from the *Buphus coromandelicus* of South-eastern Asia, though many naturalists persist in confounding the two together. The beautiful Squacco Heron (*Ardeola ralloides*) abounds in May, and I have seen flocks of it on the fenny flats between this place and Leghorn; it prefers the places where cattle are grazing. The diminutive *Ardetta minuta* is also common, but is rarely seen, as it skulks about the reeds and long grass. The Night-Herons (*Nycticorax griseus*) arrive in May; they are mostly adult individuals; and after dusk their melancholy “qua-a” may often be heard along the Arno, while their white ghost-like *silhouettes* may be seen through the increasing gloom stalking about on the sand-banks in the river. The long white feathers which form the occipital crest in this species vary much in number: I got a specimen with as many as six; three is, I believe, the ordinary number. The Bittern (*Botaurus stellaris*) remains occasionally all the year round in the Pisan Marshes; I found it common in early spring.

The Black Stork (*Ciconia nigra*) is said to breed in the neighbouring fens; but I have come across neither it nor the white species, *Ciconia alba*. The Glossy Ibis (*Ibis falcinellus*) passes here pretty regularly in the latter half of April, stopping about a month: I saw three flying over the marshes of San Rossore in May.

We have three species of Curlew here—the *Numenius arquata*, the *N. phaeopus*, and the *N. tenuirostris*: this last is the rarest and most interesting. I had the pleasure of seeing several, in April, on an islet at the Bocca d'Arno. Their presence in Tuscany appears

to be accidental; for at times they appear in great numbers, becoming afterwards extremely scarce.

I have met with only one species of Godwit, the *Limosa melanura*, which abounds in March and April. *Totani* are pretty numerous during the spring passage. *Totanus glottis* is said to stop the winter in this neighbourhood: I have seen it in February; while I got a specimen of the Common Redshank (*Gambetta calidris*) in March. In May a splendid specimen of the Spotted Redshank (*Erythrosceles fuscus*) was brought to me alive; it had been netted with a lot of *Sterna*, and was in full summer dress. *Helodromas ochropus* and *Rhyacophilus glareola* are common; while *Tringoides hypoleucos* abounds. *Totanus stagnatilis* is much scarcer, and I only procured two specimens in April.

The Stilt (*Himantopus candidus*, called here "Cavalier d'Italia") passes every year pretty regularly in May. I had the good fortune of seeing a flock of five of these curious birds, wading about in a shallow pool at Bocca d'Arno: they took to the wing on my approach, flying very swiftly, and uttering a clear bell-like sound. The Avocet (*Recurvirostra avocetta*) is rather rarer; but every year, during the spring, one or two are captured.

The Ruff (*Philomachus pugnax*) is exceedingly common during March and April, but it never occurs in its summer dress; now and then, however, I have come across individuals with the change coming on: the males invariably arrive before the females. Sandpipers and true Tringas are not very common, and I have found only a few species. *Pelidna subarquata*, in full nuptial dress, is brought alive in large numbers to the market: it is caught with nets, and thrives very well in captivity. I kept nine or ten for about three months in a small enclosed space in the garden, where they had a little pool of water; I fed them on bread and chopped meat, which they ate readily, and they were brisk and active all the while I kept them, the males constantly fighting together, just as the Ruffs do.

With the Curlew-Sandpiper I got *Limonites temmincki* and *Actodromas minuta*; while, in May 1863, Professor Savi procured in a similar manner nine specimens of the rare *Limicola pygmæa*, all in full summer plumage.

I have met with the following species of *Scolopacidae*:—*S.*

rusticola, *Gallinago scolopacina*, and *G. gallinula*, during the winter. Brehm's Snipe (*G. burka* or *G. brehmi*) is not rare ; I found it in February ; and *Gallinago major* arrives towards the end of April in great numbers.

The quick and sprightly Water-Rail (*Rallus aquaticus*) is peculiarly common here, while at Genoa I found it very scarce. *Ortygometra porzana* is also exceedingly abundant, appearing in April ; and *O. pusilla* is pretty common about the same time. Baillon's Crake (*O. baillonii*) is decidedly rarer, arriving also later in the spring. The Moor-hen (*Gallinula chloropus*) arrives here in April, and is then very common ; while the Coot (*Fulica atra*) abounds on every marsh in the Pisan neighbourhood, especially on the small Lake of Massacinccoli, near Viareggio, and is eagerly sought for as an article of food. I suspect that the Crested Coot (*F. cristata*), so common in the island of Sardinia, often strays to these shores and is confounded with the common species.

The Flamingo (*Phœnicopterus antiquorum*) has been shot here latterly, but its appearance in these parts is a rare event.

The only Wild Goose I have met with during my ornithological rambles was *Anser segetum*, in large flocks on the San Rossore preserves during the winter. Of *Anatidæ* I have found the following species in winter and early spring :—*Anas boschas*, *Mareca penelope*, *Dafila acuta*, *Chaulelasmus strepera*, *Querquedula circia*, *Nettion crecca*, *Spatula chlypeata*, *Æthya ferina*, *Nyroca leucophthalmus*, *Fuligula cristata*, and *Clangula glaucion* (young birds). *Callichen rufina* is also here pretty often ; but I have not met with it. Of the *Merginæ*, I only procured the Smew (*Mergellus albellus*).

The Pisan neighbourhood would seem peculiarly well adapted for Grebes, and my expectations in that quarter were very high, as I hoped to get all the European species ; however, I was doomed to be disappointed, and got only three species, *Podiceps cristatus*, *Proctopus auritus*, and the common Dabchick (*Sylbeocyclus minor*).

My list of Sea-Gulls and such like will be short ; for, owing to my numerous occupations, my visits to the coast were necessarily few and far apart ; however, I contrived to see the following. The Manx Shearwater (*Puffinus anglorum*) I saw resting on the

water near the Gombo, towards the middle of May. These birds never came up the Arno, nor have I ever heard of their having been seen on fresh water ; they appear eminently marine.

About Leghorn harbour and the neighbouring shore along the Ardenza I saw, towards the end of May, *Laroides argentatus*, *L. fuscus*, *L. canus*, and *Chræcocephalus ridibundus*, all very common ; while I saw only a few scattered individuals of the beautiful *Chræcocephalus melanocephalus* and of the Little Gull (*Hydrocolæus minutus*).

As to the *Sterninae*, I never was in a place where so many are seen. Towards the middle of May, when the passage begins in the Maremma and in the fenny country around Pisa, hundreds and thousands are caught with nets ; indeed, so great is the number, that they are sent in bags to the Pisan market, to supply the wants of the poorer classes, who do not object to toughness and a strong fishy taste ; and such is their abundance, and so little their worth, that their wings are cut off before they enter the gates of the town, as they pay duty in proportion to their weight. These mutilated and dead birds may be seen in heaps in the market ; but, what is worse, whole cagefuls are brought alive, and sold at the rate of a penny each, for the amusement of street-boys and such like, who torture the poor creatures dreadfully, until hunger puts an end to their lives ; for they will not eat in captivity. The commoner species thus caught are *Hydrochelidon nigra*, *H. leucoptera*, and *Sternula minuta*. *Sterna hirundo* is scarcer ; and on the 20th of last May, among a lot of Little Terns, I found a fine male specimen of the *Hydrochelidon leucopareia*. Professor Savi told me that he had got several of them during the spring of 1863.

Here finishes the list of the birds which came within my observation during my nine months' stay here. Before concluding, I will add that, from what I have seen, the country around Pisa, especially towards the Maremma, is most favourable to marsh-loving birds, and more especially to some sections of the *Sylviinae* ; and I doubt not that, as shooting has been recently permitted to ornithologists during the spring and summer, new species may turn up in the Tuscan avifauna.

Pisa, October 21st, 1864.